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# 調和解析学と非線形偏微分方程式

京都大学数理解析研究所

2004年11月

## Workshop on Harmonic Analysis and Nonlinear Partial Differential Equations

Research Institute for Mathematical Sciences, Kyoto University  
Room Number 420

Monday, July 5, 13:40 — Wednesday, July 7, 11:55

Organizers: Hideo Kozono (Tohoku Univ.)  
Yoshio Tsutsumi (Kyoto Univ.)  
Masao Yamazaki (Waseda Univ.) (chair)  
e-mail: masao.yamazaki@waseda.jp

<http://www.math.waseda.ac.jp/yamazaki/meetings/hanlpde04.html>

Monday, July 5

13:40–14:40 Makoto Nakamura (Tohoku University)

On global solutions for wave equations under the null condition  
in 3 space dimensions

14:50–15:50 Akihiro Shimomura (Gakushuin University)

Modified wave operators for Nonlinear Schrödinger equations  
with Stark effects

16:00–16:45 Hidemitsu Wadade (Tohoku University)

The upper bound of the best constant of Trudinger-Moser  
inequality and its applications to Gagliardo-Nirenberg inequality

Tuesday, July 6

10:00–11:00 Nobuhiko Fujii (Tokai University)

On  $L^p$ -estimates for some integral operators

11:10–12:10 Yuichi Kanjin (Kanazawa University)

Transplantation theorems and their applications

13:40–14:40 Akihiko Miyachi (Tokyo Woman's Christian University)

Weighted  $H^p$ -spaces on a domain and singular integrals

14:50–15:50 Jürgen Saal (Technische Universität Darmstadt)

Rotating Navier-Stokes equations in a half-space with  
nondecreasing initial data: The Ekman boundary layer problem

16:00–16:45 Okihiro Sawada (JSPS fellow, Waseda University)

On the Navier-Stokes flow with linearly growing initial data  
–an application to Ornstein-Uhlenbeck semigroup–

18:00– Banquet (Co-op Inn Kyoto)

[http://www.mytrip.net/HOTEL/10846/10846\\_e.html](http://www.mytrip.net/HOTEL/10846/10846_e.html)

Wednesday, July 7

10:00–11:00 Toshiaki Hishida (Niigata University)

$L^q$  estimates for the Stokes equations around a rotating body

11:10–11:55 Hyunseok Kim (Tohoku University)

On a removable isolated singularity theorem for the stationary  
Navier-Stokes equations

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Harmonic Analysis and Nonlinear Partial Differential Equations  
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